Work-life balance of shift workers

Cara Williams

orking 9 to 5 may be what many consider a normal full-time job. However, in an economy that often demands 24/7 activity, shift work remains common. At the same time, however, the labour force is aging and work-life balance is increasingly important to workers.

Working shifts can have negative health effects, and complicate the scheduling of family activities (Halpern 2005, Levin-Epstein 2006, Rosa and Colligan 1997, Costa 2003, Shields 2002). Additionally, because shift work is rarely restricted to weekdays, finding child care on weekends or making plans for holidays and social activities can be difficult. Conversely, for some, working shifts may reduce the need for child care and may ensure that a parent is available to get children ready for school in the morning, greet children after school or provide elder carethereby reducing work-life conflict (Marshall 1998).

This article examines the prevalence and types of shift work among persons between the ages of 19 and 64 with full-time jobs. It also examines the hours spent on other activities like unpaid work or time with family members. Work-life

Cara Williams is with the Business and Trade Statistics Field. She can be reached at 613-951-6972 or perspectives@statcan.gc.ca.

balance, role overload and other indicators of well-being are examined for differences across shifts. Finally, multivariate analysis is used to assess the impact of work schedules and demographic and socioeconomic variables on work-life balance and role overload for men and women (see *Data source and definitions*).

Rotating and irregular shifts most common

Shift work has changed through the years (see *Shifts over time*). Today, it comprises regular night and evening work, rotating and split shifts, casual/on-call jobs, and irregular shifts. In this article, working shift will refer to anything other than a regular daytime schedule.

In 2005, approximately 28% (4.1 million) of the 14.6 million employed Canadians worked

something other than a regular day shift (Table 1); the vast majority (82%) worked full time (30 or more hours per week). While women made up approximately 37% of all full-time shift workers, almost 7 in 10 part-time shift workers were women. Because worklife conflict and role overload are more likely to affect full-time workers, this article will focus mainly on such individuals (see Part-time workers).

In 2005, rotating shifts and irregular schedules were the most common types of shift work, accounting for 2.3 million full-time workers (Table 2), even though these are considered among the most difficult shifts because the body cannot properly adjust to the sleep pattern changes, rotating child care is difficult to find and health effects can be profound (Costa

Table 1 Workers aged 19 to 64 by shift and work status

	All workers			Regular day			Shift workers		
	Both	Men	Wo- men	Both	Men	Wo- men	Both	Men	Wo-
	′000		%	'000		%	'000		%
Total ¹	14,640	55	45	10,547	54	46	4,068	57	43
Full-time	13,139	58	42	9,774	57	43	3,347	63	37
Part-time	1,494	26	74	773	22	78	721	31	69

1. Includes unknown work schedules.

Source: Statistics Canada, General Social Survey, 2005

Data source and definitions

Every year since 1985, the General Social Survey (GSS) has interviewed Canadians aged 15 and over in the 10 provinces on a wide range of issues. This paper examines GSS time-use data collected using a 24-hour time diary. In 2005 the sample size was 19,600. The target population of this study was persons aged 19 to 64 at the time of the survey who worked full time (30 hours per week or more). Students were excluded.

Shift work comprises

- regular evening schedules
- regular night schedules
- rotating shifts (those that change periodically from days to evenings or to nights)
- split shifts (two or more distinct periods each day)
- on call or casual (no prearranged schedules—for example, substitute teachers).
- irregular schedule (changes, but usually prearranged one week or more in advance—for example, pilots)
- Other, non-day schedules

Non-shift work is any regular daytime schedule.

Work-life balance is a self-perceived notion. The 2005 GSS determined satisfaction with work-life balance by asking

"Are you satisfied or dissatisfied with the balance between your job and home life?"

The **role overload** variable was constructed using five indicators of overload. The questions used were:

- When you need more time do you tend to cut back on your sleep?
- 2. At the end of the day, do you often feel that you have not accomplished what you had set out to do?
- 3. Do you worry that you don't spend enough time with your family or friends?
- 4. Do you feel that you're constantly under stress trying to accomplish more than you can handle?
- Do you feel that you just don't have time for fun any more?

Respondents who answered yes to four or more questions were considered to suffer from role overload.

Average time spent on activities (time use) refers to the total time spent on a given activity divided by the population, and averaged over a seven-day week. The time spent by participants refers to only those who participated in that activity on diary day, and also averaged over seven days.

2003, Rosa and Colligan 1997). Some 385,000 full-time workers had regular evening shifts and approximately 270,000 had regular night shifts. On call/casual schedules accounted for just over 100,000 workers and split schedules about 130,000.

Table 2 Shift workers aged 19 to 64

	Both sexes	Men	Women
	′000		%
Evening	523	49.4	50.6
Full-time	385	56.2	43.8
Night	309	60.3	39.7
Full-time	270	63.1	36.9
Rotating	1,345	54.5	45.5
Full-time	1,215	58.2	41.9
Split	160	52.6	47.4
Full-time	131	58.2	41.8
On call or casual	191	51.9	48.1
Full-time	102	67.6	32.4
Irregular schedule	1,324	62.5	37.5
Full-time	1,052	70.1	29.9
Other	217	61.9	38.1
Full-time	192	64.7	35.3

Source: Statistics Canada, General Social Survey, 2005.

Occupation, industry and shift

Certain occupations are more commonly associated with shift work because of the nature of the jobsfor example, those occupations providing services 24 hours per day such as doctors, nurses and police officers. Additionally, some manufacturing jobs are also associated with shift work since some firms operate 24 hours per day. The 2005 General Social Survey confirmed this-for example, about 45% of those working in health occupations were shift workers, as were 66% in protective service occupations (police, security guards). Other occupations where shift work was relatively common were sales and service (40%) and those unique to primary industries (42%). Conversely, less than 10% of natural and applied sciences and 12% of business, finance and administrative jobs entailed shift work (Table 3).

Not surprisingly, just as certain occupations are more likely to be tied to shifts, so too are certain industries. This may be because they offer services at non-trautional work times or involve continuous production. Health care, accommodation and transport industries come to mind when thinking about shift work. Indeed, in 2005 more than 50% of full-time workers in the accommodation and food industry worked

Table 3 Full-time workers aged 19 to 64 by occupation, industry and shift

	Total workers	Regular day	Shift
Industry	′000		%
Agriculture, forestry, fishing and hunting	230	65.3	34.7
Mining, oil and gas extraction	302	67.7	32.6
Utilities	121	89.7	10.3
Construction	888	84.1	15.9
Manufacturing	1,717	73.2	26.8
Trade	1,716	73.8	26.3
Transportation and warehousing	650	60.5	39.5
Finance and insurance	904	81.9	18.1
Professional, scientific and technical	1,079	86.8	13.2
Business, building and other support	448	63.9	36.1
Educational services	817	89.5	10.5
Health Care and Social Assistance	1,272	68.0	31.9
Information, culture and recreation	607	62.3	37.7
Accompdation and food	620	47.3	52.7
Other services	544	75.6	24.4
Public administration	831	80.7	19.3
Occupation			
Management	1,275	80.1	19.9
Business, finance and administrative	2,479	87.9	12.1
Natural and applied sciences	1,097	90.7	9.3
Health	690	54.7	45.3
Social science and education	990	84.9	15.1
Art, culture, recreation and sport	426	66.3	33.7
Sales and service	2,573	60.5	39.5
Trades, transport and equipment operators	1,900	72.2	27.8
Unique to primary	420	58.5	41.5
Unique to processing, manufacturing	001	40.0	0/-
and utilities	886	63.3	36.7

something other than a regular day schedule. About 4 in 10 workers in information, culture and recreation, as well as transportation and warehousing worked shifts. However, in some industries the vast majority of workers worked only a regular daytime schedule—for example, education, professional and scientific services, utilities and construction.

Demographics and shift

While women make up about 42% of all full-time workers, their share of shift work is slightly lower at about 37%, with only slight differences by type of shift (Chart

A). For example, fewer women worked irregular shifts (25% vs. 35% for men), but they were more likely to work rotating shifts (41% vs. 34%) or evening shifts (14% vs. 10%).

Full-time shift workers were less likely to be married than their regular day counterparts. While about 7 in 10 day workers were married (with or without children), only about 6 in 10 shift workers were married (Table 4). Shift workers were more likely to be single—3 in 10 shift workers were single compared with 2 in 10 of those working a regular day schedule. This may be a result of shift workers being

slightly younger than day workers. For example, the average age of a full-time shift worker was about 38, compared with 41 for full-time day workers.

Presence of children may lead individuals to work different shift patterns. However, the proportion of married and common-law couples with children under 15 was the same for shift workers and day workers. The only significant difference was for regular evening workers. Only about 22% of families with a parent working evening shifts had children compared with about 30% of day workers.

Reasons for working shifts

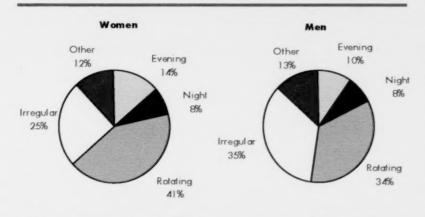
The reasons for working a certain shift can vary. The General Social Survey did not ask the question, but the American Current Population Survey did. The most common reason, cited by 55% of full-time shift workers, was the nature of the job. However, for some, shift work was preferred because of family or child care (8%), school (3%), better pay (7%), or personal preference (11%). For another 8%, it was the only type of job they could get (McMenamin 2007).

Satisfaction with work-life balance varies somewhat with shifts

Work-life balance is a self-defined, self-determined state reached by a person able to effectively manage multiple responsibilities at work, at home, and in the community. It supports physical, emotional and family health and does so without grief, stress or negative impact (HRSDC 2005).

In general, work-life balance can be difficult to achieve for full-time workers irrespective of work schedules, especially for those with

Chart A Among full-time shift workers, women were more likely than men to work rotating or evening shifts



children. However, when work schedules are regular, or when workers have some control over their shifts, it is much easier to reduce the conflicts relating to family and work (Halpern 2005). Not surprisingly then, satisfaction with work-life balance varies somewhat by type of shift. Indeed, day workers were the most likely to be satisfied with their work-life balance, followed by regular evening workers—their schedules are regular and they can plan activities around work. Perhaps surprisingly, since their schedules change throughout a month, almost 73% of rotating shift workers were satisfied with their work-life balance. The least satisfied were those with split or irregular shifts (about 65% were satisfied), on call or casual (62%), or with other shifts (63%)—those workers with the least control of their work schedules (Table 5).

For families with children where both spouses work full time finding balance may be a challenge, which could be exacerbated by shift work. The GSS shows that about 75% of full-time day workers whose spouse also worked full time were satisfied with their worklife balance. When their spouse worked part time or was not in the labour force, about 77% were satisfied. Conversely, full-time shift workers were more likely to be satisfied with their work-life balance when their spouse worked full time (71%) than when their spouse worked part time or was not in the

Table 4 Family status of shift workers aged 19 to 64

	Regular day	Shift							
		Total	Evening	Night	Rotating	Split	On call or casual	Irregular	Other
Family type					%				
Married or common-law, no children	41.7	34.3*	36.1	19.3*	33.3*	38.5	41.6	36.4*	41.1
Married, with children under 15	29.6	27.5	22.1*	27.0	26.2	21.1	32.1E	31.0	29.8
Separated, widowed, divorced, no children	6.0	7.1	6.3₺	12.01*	5.8	10.5	F	7.2	7.1
Separated, widowed, divorced, children under 15	2.3	1.7*	F	F	1.5	F	F	1.81	F
Single, no children	19.2	28.0*	32.3*	38.0*	31.6	22.4	17.7€	23.0*	18.6
Single, children under 15	1.1	1.5	F	F	1.8	F	F	F	F

significantly different from regular day schedule in the same category Source: Statistics Canada, General Social Survey, 2005.

Table 5 Well-being of full-time shift workers aged 19 to 64

	Regular day				SI	nift			
		Total	Evening	Night	Rotating	Split	On call or casual	Irregular	Other
Work-life balance					%				
Satisfied	75.8	69.1*	73.0	70.0	72.5	65.0	61.7*	65.9*	62.7°
Dissatisfied	22.6	28.5*	23.1	27.2	25.4	32.6	37.75*	32.4*	32.8*
Role overload indicators									
Cut back on sleep	53.6	61.1*	70.0*	60.4	62.9*	61.0	60.1	58.1*	56.1
Not accomplishing all in a day Not enough time with family	47.2	50.0	47.9	44.2	49.4	53.5	49.9	52.2	52.7
and friends	50.8	55.7*	50.9	53.0	54.2	56.4	65.8*	58.1*	58.5
Often stressed when trying to accomplish more than									
can handle	40.7	43.4	45.3	35.8	41.4	49.8	47.3	46.7*	44.5
No time for fun	41.1	43.3	42.0	39.1	42.9	60.1*	52.4	41.5	49.6
Role overload									
Yes (four or more indicators)	27.2	30.9*	26.1	33.1	31.1*	35.5	38.6	30.4	31.8
Other well-being indicators									
Workaholic	30.3	36.1*	36.9	27.1	33.2	42.2	41.4	43.1*	26.7
High life stress	26.6	26.8	21.0	25.2	24.1	35.6	22.0₺	31.3*	30.1
Flexible work arrangements	40.3	35.0*	19.5*	11.98*	21.0*	32.8	53.1*	59.9*	43.6

^{*} significantly different from regular day schedule

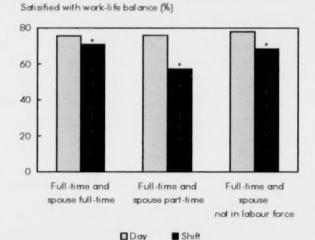
labour force. Indeed, satisfaction with work-life balance decreased to 57% for full-time shift workers when their spouse worked part time and was 68% when their spouse was not in the labour force (Chart B).

While the proportion of full-time workers unhappy with their work-life balance varied, the main reasons for dissatisfaction were similar. For example, not enough time for family and too much time spent on the job were the top reasons for all full-time workers regardless of their schedule. Other employment-related reasons and not enough time for other activities were also cited.

Role overload-too much to do and not enough time to do it-provides another measure of well-being. For example, often feeling that not enough is accomplished in the day, worrying about not spending enough time with family, constantly feeling under stress, trying to accomplish more than can be handled and cutting back on sleep are all indicators of role overload.

Indeed, cutting back on sleep in order to gain time is one way to try to find time to accomplish more in a day, but if done regularly it can have negative health

Chart B Work-life balance more elusive for shift-worker couples



^{*} significantly different from regular day schedule

Shifts over time

Between 1992 and 1998 the proportion of full-time workers who worked something other than a regular daytime schedule increased from 22% to 28%; it then slipped back to 25% in 2005. Over this same 14-year period, women's share among full-time workers increased from 39% to 42%, and their share of full-time shift work increased from 33% to 37%.

Rotating shifts and irregular shifts remained the most common. For example in 1992, one in two shift workers worked a rotating schedule; by 2005 two-thirds of full-time shift workers worked either a rotating or an irregular schedule (irregular shifts were not identified in 1992).

While it is not possible to look at the type of work schedule worked by spouses, it is possible to examine if spouses of full-time workers were in the labour force and whether they worked full or part time. If the spousal work patterns are different for regular day workers and shift workers, this may suggest that families, where at least one parent works something other than a daytime schedule, find ways to juggle their work schedules.

In 1998, about 5.5 million day workers had a spouse in the household. Most full-time day workers' spouses worked full time (60%). In the case of shift workers, just over 2 million full-time shift workers had a spouse—and about 58% of spouses worked full time, 16% worked part time and another 23% were not in the labour force. By 2005, full-time participation in the labour force grew for spouses of shift workers—about 1.9 million shift workers had a spouse in the household—and 64% of these spouses worked full time, 13% part time and 23% were not in the labour force.

The issue of balancing home and work is not new as workers face the struggle to juggle. Indeed, about 28% of all full-time workers in 1998 were dissatisfied with their work-life balance (not asked in 1992). Not surprisingly, shift workers had slightly higher levels of dissatisfaction than day workers (33% vs. 25%). In 2005 dissatisfaction with work-life balance had decreased slightly to 29% for shift workers and about 23% for full-time day workers, illustrating that although work-life balance has been an issue for some time, it does not appear to be increasing.

Full-time workers aged 19 to 64 by shift

	1992	1998	2005
		'000	
All workers	10,387	11,102	13,139
Men	6.323	6,695	7,644
Women	4,064	4,407	5,495
		1%	
Regular day	77.9	72.3	74.4
Men	75.6	69.6	72.4
Women	81.3	76.5	77.2
Shift workers	22.2	27.6	25.5
Men	24.4	30.4	27.5
Women	18.7	23.5	22.7
Evening	14.7	10.5	11.5
Men	13.4	10.1	10.3
Women	17.2	11.2	13.6
Night	8.3	7.3	8.1
Men	8.4	7.4	8.1
Women	8.1	7.18	8.0
Rotating	51.7	35.1	36.3
Men	52.7	32.1	33.7
Women	49.7	41.2	40.8
Split	6.6	3.2	3.9
Men	6.4	3.1	3.6
Women	6.8	3.4	4.4
On call/casual		3.6	3.0
Men		3.2	3.3
Women	69	4.2€	2.6
Irregular	99	39.9	31.4
Men		43.7	35.1
Women	• >	32.3	25.2
Other	18.8	F	5.7
Men	19.0	F	5.9
Women	18.3	F	5.5

Source: Statistics Canada, General Social Survey.

implications (Rosa and Colligan 1997). While more than 50% of all full-time workers cut back on sleep when they needed more time, the likelihood differed by work schedule. For example, just over half of all day workers cut back on sleep compared with 70% of evening shift workers and 63% of rotating shift workers. This may be particularly problematic for shift workers since they may already be having difficulty with sleep time.

Several other role overload indicators were significantly different for shift workers. Shift workers were more likely than their day worker counterparts to worry about not spending enough time with family or friends (56% vs. 51%). Those working irregular schedules seemed the most affected by role overload. They were significantly more likely to cut back on sleep, worry about not spending enough time with family and friends, and feel constantly stressed trying to accom-

plish more than they could handle. While experiencing one or two of the role overload components indicates some level of overload, four or more indicates more serious overload. About 27% of day workers and 31% of shift workers cited four or more indicators.

Work-life balance and role overload measures differed for men and women. While women in general had a higher incidence of work-life imbalance (27% vs. 19%) and role overload (32% vs. 23%), they showed no significant differences by shift type. Conversely, for men, shift workers were more likely to be dissatisfied with their work-life balance (29%) than those working a regular day schedule (19%). Men also differed between day and shift work in the incidence of role overload. While 28% of men working shifts had high role overload, only 23% of their day worker counterparts experienced high levels (Chart C).

General life stress is another measure of role overload, particularly if it results from feeling that there is not enough time in the day to do everything. In general terms, no difference in life stress was seen between regular day workers and shift workers around 27% of both felt most days were quite a bit to extremely stressful. As to what caused this stress, about half cited lack of time as the trigger.

Flexibility of schedule

Previous research has shown that flexible work schedules lead to greater work-life balance and can offset work stress (Levin-Epstein 2006). The GSS allows for partial examination of work schedule flexibility, asking workers if they have flexible start and end times. While about 4 in 10 day workers had flexible times, some shifts were less likely to offer this flexibility. For example, only about 20% of evening shift workers and less than 12% of night shift workers had flexible work arrangements, but over 50% of those who worked irregular, on-call or casual shifts had flexible schedules.

Shift work and time spent with family

Previous research has found trade-offs between nonstandard schedules and time spent with a spouse and children. For example, working at night is associated with spending more time with children—suggesting that night schedules are a way for parents to juggle child care (Golla and Vernon 2006). In 2005, night shift workers spent 4.4 hours per day with their children—about 30 minutes per day more than day work-

Part-time workers

In general, women were more likely than men to work part time. This holds true regardless of work schedule. For example, about 78% of part-time day workers were women and 69% of part-time shift workers were women.

Working part time may allow workers to achieve work-life balance and be less likely to suffer from role overload, as they may feel they have more time to devote to non-work activities. While full-time shift workers were less likely to be satisfied with their work-life balance than full-time day workers, this was not the case for part-time workers—85% were satisfied with their work-life balance.

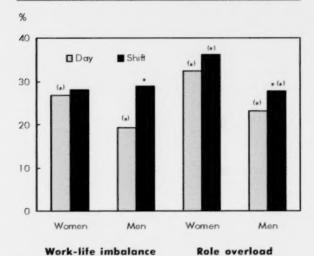
Perhaps because of the hours during which they work, parttime shift workers were significantly more likely to cut back on their sleep than day workers. However, working part time seems to smooth out other differences between day and shift workers, as no other significant differences in role overload or other well-being indicators were seen between parttime day and shift workers.

Part-time workers aged 19 to 64

	Regular day	Shift
Total	773,000	721,000
Sex		%
Men	22.4	30.7*
Women	77.6	69.3*
Family type Married or common-law,		
no children	37.3	31.9
Married, children under 15 Separated, widowed, divorced,	31.2	32.4
no children Separated, widowed, divorced,	8.9	5.0
children under 15	F	F
Single, no children	17.6	27.7
Single, children under 15	F	F
Work-life balance		
Satisfied	88.0	84.5
Dissatisfied	10.4	13.7
Role overload indicators		
Cut back on sleep	41.2	54.0*
Not accomplishing all in a day Not enough time with family	47.7	49.0
and friends Often stressed when trying to accomplish more than	41.7	41.7
can handle	32.7	36.5
No time for fun	28.8	31.5
Role overload		
Yes (four or more indicators)	18.9	22.8
Other well-being indicators		
Workaholic	15.7	16.3
High life stress	17.4	15.8
Flexible work arrangements	46.9	51.8

^{*} significant difference from part-time day workers Source: Statistics Canada, General Social Survey, 2005.

Chart C Regardless of schedule, women more likely to have work-life imbalance or role overload



significantly different from regular day schedule
 significantly different from opposite sex

vious studies, some shift workers spent less time sleeping or had more difficulty sleeping than their day counterparts (Williams 2001, Rosa and Colligan 1997, Åkerstedt 2003). For example, daytime workers averaged just over 8 hours of sleep, while regular night shift workers had about 45 minutes less.

Multivariate analysis

Logistic regression models were used to examine the relationship between satisfaction with work-life balance and role overload and several job characteristics, including shift work, and various demographic variables. Separate models were developed for women and men since factors contributing to their well-being have been shown to be different (MacDonald, Phipps and Lethbridge 2005).

Working shift was associated with a lower likelihood of avoiding role overload. That is, shift workers, both men and women, were about 15% less likely than day workers to have no role overload. Shifts were also a factor in the satisfaction with work-life balance model for men. Male shift workers were about 25% less likely than day workers to be satisfied with their work-life balance. However, shift work was not a significant predictor in the work-life balance model for women.

ers—and they spent 3.3 hours with their spouse—just over 1 hour less than day workers (Table 6). While working in the evening has been associated with less time spent with spouses and children (Golla and Vernon 2006), the GSS found only partial support for this. For example, evening shift workers spent an average of 4.2 hours per day with their children—about 18 minutes more than day workers—but they spent less time with their spouse than day workers (about 1 hour less).

Average time spent on unpaid work was relatively constant at about 96 minutes per day, with a few exceptions—night workers did slightly less at about 83 minutes and those working irregular shifts, about 92 minutes. Finally, as in pre-

Table 6 Time spent on activities by full-time shift workers aged 19 to 64

	Paid work	Unpaid work	Sleep	Time with children	Time with spouse ²	Time with household members ³
				hours		
Day	6.8	1.6	8.1	3.9	4.4	4.6
Evening	6.4	1.8	8.1	4.2	3.4	3.8
Night	7.1	1.4	7.4	4.4	3.3	3.3
Rotating	6.8	1.7	7.9	3.9	4.1	3.9
Split	6.5	1.6	8.0	3.5	4.1	4.1
On call or casual	7.0	1.9	7.7	3.3	3.2	3.2
Irregular	7.2	1.5	7.9	3.1	4.2	4.5
Other	7.4	1.9	7.5	3.7	5.0	4.8

^{1.} For those with children under 15.

Source: Statistics Canada, General Social Survey, 2005

^{2.} For those with a spouse or partner

For those not in a single-person household (includes time spent with children 15 and over living at home).

Other factors were associated with satisfaction with work-life balance and role overload for both women and men. Indeed, those satisfied with their job had significantly higher odds of feeling satisfied with their work-life balance or not being overloaded (Table 7). For example, women very satisfied with their job had 5.7 times the odds of being satisfied with their worklife balance and 2.4 times the odds of not suffering from role overload. This supports research showing that a positive work environment and high levels of job satisfaction can help individuals feel less stressed and help them attain better balance (HRSDC 2008). Additionally, individuals with high levels of life stress had significantly lower odds of being satisfied with their work-life balance or being able to achieve role balance. For example, women working full time and having high levels of life stress had a 68% lower chance of being satisfied with their work-life balance (58% for men), and both women and men had a 76% lower likelihood of avoiding role overload.

Time spent on the job also affects work-life balance. For example, working 46 hours or more per week was associated with lower odds of being satisfied with the balance between work and home for both sexes. Long work hours were also associated with role overload. Indeed, for both men and women working long hours was associated with a lower likelihood of avoiding role overload. For example, women working 56 or more hours per week had a 72% lower likelihood of being satisfied with their work-life balance and a 56% lower likelihood of avoiding role overload (78% and 49% respectively for men). Additionally, those seeing themselves as workaholics also had lower odds of having struck a satisfactory work-life balance or avoiding role overload. This may be because workaholics perceive and allocate their time differently than other workers while at the same time feeling they are under pressure to accomplish more than is possible in a day (Keown 2007).

Flexibility of schedule was also important in avoiding role overload for both men and women. Those with flexible work schedules were 1.3 times more likely to avoid role overload. For women, having a flexible schedule was also associated with finding satisfaction with work-life balance. This may be because a flexible work schedule allows for appointments, children's school events, unforeseen child or elder care issues, or other events that may arise.

Satisfaction with work-life balance and being able to avoid role overload are also related to demographic characteristics. Even after accounting for other confounding factors, age seems to play a role for both measures. For example, individuals between 35 and 54 had lower odds than those between 55 and 64 of being satisfied with their work-life balance or having avoided role overload. This may be because younger individuals are in their prime working years and more concerned with developing careers, while older individuals are more established both at home (older children) and at work.

The well-being models were similar for men and women, except for two striking differences. For women, family type was a significant predictor of both work-life balance and role overload; for men, this was not the case. For women, having a spouse and children or being a lone parent was associated with lower odds of being satisfied with work-life balance or avoiding role overload; for men, family type was significant only in the role overload model. These differences may reflect women's continuing role as primary caregivers of children and managers of households.

The other differences between men and women were in the industry and occupation variables. While industry had no effect for women on either measure, this was not the case for men. For men, manufacturing, trade, and transportation and warehousing were associated with a lower likelihood of being satisfied with their work-life balance; manufacturing, and education and health, were associated with being less likely to avoid role overload.

Some occupations—social sciences, sales and culture; and trades and those unique to primary industries or manufacturing—seemed to offer some protection to both men and women with respect to role overload compared with managerial, business, finance or scientific jobs.

For those with high incomes, the purchase of time, through restaurant meals, cleaning services or other services may be one way to reduce the time burden and thereby find balance or reduce overload. While income did not have a significant impact for women on the likelihood of being satisfied with work-life balance, lower incomes were associated with a lower likelihood of being able to avoid role overload for both men and women.

Summary

In 2005, over 3 million full-time workers worked something other than a regular daytime schedule, with two-thirds of them working a rotating or irregular shift. Just as women's share of full-time work has increased in the labour market in general, so too has their share of full-time shift work. In 2005, about 37% of full-time shift workers were women, up from about 33% in 1992.

Some occupations are more commonly associated with shift work. Almost half of workers in healthrelated occupations and two-thirds of those in protective services worked shifts. Not surprisingly, those in sales and service-related occupations were also more likely to work shifts.

Time-use patterns are slightly different among shift workers. Virtually all shift workers spent less time with their spouse than those who worked a regular day schedule. But certain types of shifts had little in common with daytime work in terms of time spent on activities. For example, night shift workers spent the least time on unpaid work or sleeping but spent more time with their children than other shift workers.

Work-life balance and role overload are measures of well-being. In 2005, shift workers were significantly more likely to be dissatisfied with their work-life balance than regular day workers. They were also more likely to suffer from role overload. Indeed, those working on call or other shifts had significantly higher levels of dissatisfaction with work-life balance than day workers (23%). Interestingly, all shift workers were more likely to cut back on sleep when they

Table 7 Multivariate models of work-life balance and role overload

	Satisfied wi life bal		No re overlo	
	Women	Men	Women	Men
Work schedule		odd	s ratio	
Regular day (ref*)	1.00	1.00	1.00	1.00
Shift work	n.s.	0.75*	0.82*	0.89
Age				
19 to 34	n.s.	0.55*	0.68*	0.61
35 to 54	0.72*	0.65*	0.76*	0.664
55 to 64 (ref*)	1.00	1.00	1.00	1.00
Family type				
Couple, no children (ref*)	1.00	1.00	1.00	1.00
Couple, children	0.67*	n.s.	0.72*	0.804
Lone parent	0.64*	n.s.	0.61*	0.56
Other family	0.79*	n.s.	1.47°	1.28
Education				
University degree or above (ref*)	1.00	1.00	1.00	1.00
College diploma or certificate	n.s.	n.s.	n.s.	0.85
Some postsecondary	n.s.	n.s.	n.s.	n.s.
High school or less	1.72*	1.44*	n.s.	n.s.
Industry				
Primary and utility	n.s.	n.s.	n.s.	n.s.
Construction	n.s.	n.s.	n.s.	n.s.
Manufacturing	n.s.	0.74*	n.s.	0.81
Trade	n.s.	0.69*	n.s.	n.s.
Transportation and warehousing	n.s.	0.66*	n.s.	n.s.
Financial, professional, business (ref*)	1.00	1.00	1.00	1.00
Education and health	n.s.	n.s.	n.s.	0.73
Accommodation and food services	n.s.	n.s.	n.s.	n.s.
Public administration	n.s.	n.s.	n.s.	n.s.
Information, culture and recreation	n.s.	n.s.	n.s.	n.s.
Occupation				
Managers, business, finance, sciences (ref	1.00	1.00	1.00	1.00
Health	n.s.	n.s.	n.s.	n.s.
Social sciences, sales, culture	n.s.	n.s.	1.25*	1.30
Trades, primary, processing, manufacturin	g n.s.	1.40*	1.50*	1.47
Usual Weekly hours				
Less than 39 (ref*)	1.00	1.00	1.00	1.00
39 to 45	0.83*	n.s.	0.76*	0.874
46 to 55	0.52*	0.45*	0.66*	0.64
56 or more	0.28*	0.22*	0.44*	0.51
Flexible start and end time				
Yes	1.30*	n.s.	1.30*	1.304
No (ref*)	1.00	1.00	1.00	1.00
Job satisfaction				
Unsatisfied with job (ref*)	1.00	1.00	1.00	1.00
Relatively satisfied	2.34*	2.20*	1.49*	1.38
Very satisfied	5.65*	6.90*	2.37*	2.47
Level of stress				
No stress (ref*)	1.00	1.00	1.00	1.00
Mid level of stress	0.73*	0.73*	0.57*	0.54
High stress	0.32*	0.42*	0.24*	0.24

Table 7 Multivariate models of work-life balance and role overload (concluded)

		Satisfied with work- life balance		ole
	Women	Men	Women	Men
Workaholic		odd	s ratio	
Yes	0.57*	0.61*	0.38*	0.42*
No (ref*)	1.00	1.00	1.00	1.00
Elder care				
Yes	n.s.	n.s.	n.s.	n.s.
No (ref*)	1.00	1.00	1.00	1.00
Income				
Under \$10,000	n.s.	n.s.	n.s.	n.s.
\$10,000 to \$29,999	0.5.	n.s.	0.63*	0.65*
\$30,000 to \$49,999	n.s.	1.40*	0.77*	0.73*
\$50,000 to \$79,999	n.s.	n.s.	n.s.	0.85*
\$80,000 to \$99,999	n.s.	n.s.	n.s.	n.s.
\$100,000 and over (ref*)	1.00	1.00	1.00	1.00

^{*} significantly different from the reference group (ref*) at 0.05 level or better n.s. not significant

needed more time and were more likely to worry about not spending enough time with family.

Logistic regression models compared the factors associated with work-life balance and role overload for men and women working full time. For men, working shift was associated with lower odds of being satisfied with their work-life balance, and shift work was a significant predictor of role overload for both women and men, indicating that because of the times they work, shift workers are more likely to feel they have too much to do and not enough time.

For women, family type was a significant factor in both satisfaction with work-life balance and avoidance of role overload. Conversely for men, industry was a factor, but family type had little bearing. However, certain factors were significant for both men and women. Indeed, regardless of work schedule or

family type, being satisfied with one's job was associated with higher odds of being satisfied with work-life balance and being able to avoid role overload. Conversely, high general life stress, working 46 hours or more per week, or being a workaholic all lowered the odds of being satisfied with work-life balance and avoiding role overload. This, in short, suggests that satisfaction with work-life balance and role overload are related not only to workers' schedules but also to a complex interaction of hours worked, self-perception and general feelings of well-being.

Perspectives

■ References

Åkerstedt, Torbjörn. 2003. "Shift work and disturbed sleep/wakefulness." Occupational Medicine. Vol. 53, no. 2. p. 89-94.

http://occmed.oxfordjournals.org/cgi/reprint/53/2/89 (accessed July 18, 2008).

Costa, Giovanni. 2003. "Shift work and occupational medicine: an overview." Occupational Medicine. Vol. 53, no. 2. p. 83-88.

http://occmed.oxfordjournals.org/cgi/reprint/53/2/83 (accessed July 18, 2008).

Golla, Anne Marie and Victoria Vernon. 2006. Late for Dinner Again: Do Work Schedules and Home Schedules Clash? Washington, D.C. 54 p. http://www.sfi.dk/graphics/SPI/Pdf/IATUR2006/golla%20-%20paper.pdf (accessed July 18, 2008).

Halpern, Diane F. 2005. "How timeflexible work policies can reduce stress, improve health, and save money." Stress and Health. Vol. 21, issue 3. August. p. 157-168.

Human Resources and Social Development Canada. 2008. Control Over Time and Work-Life Balance: An Empirical Analysis.

http://www.hrsdc.gc.ca/cn/labour/ cmployment_standards/fls/rcscarch/rescarch15/page09.shtml (accessed July 23, 2008).

Human Resources and Social Development Canada. 2005. Work/Life Balance and New Workplace Challenges – Frequently Asked Questions For Individuals.

http://www.hrsdc.gc.ca/en/lp/ spila/wlb/faq/01individuals.shtml (accessed July 22, 2008).

Kcown, Leslie-Anne. 2007. "Fime escapes me: Workaholies and time perception." Canadian Social Trends. No. 83. Summer. Statistics Canada Catalogue no. 11-008. p. 28-32. http://www.statcan.ca/english/freepub/11-008-XIE/2007001/pdf/11-008-XIE/20070019629.pdf (accessed July 18, 2008).

Levin-Epstein, Jodic. 2006. Getting Punched: The Job and Family Clock. Center for Law and Social Policy. Washington, D.C. 26 p. http://www.clasp.org/publications/getting_punched_fullnotes.pdf (accessed July 18, 2008).

MacDonald, Martha, Shelley Phipps and Lynn Lethbridge. 2005. "Taking its Toll: The Influence of Paid and Unpaid Work on Women's Well-Being." Feminist Economics. Vol. 11, issue 1. March. p. 63-94.

Marshall, Katherine. 1998. "Couples working shift." Perspectives on Labour and Income. Vol. 10, no. 3. Autumn. Statistics Canada Catalogue no. 75-001-XPE. p. 9-14.

http://www.statcan.ca/english/studies/75-001/archive/e-pdf/e-9831.pdf (accessed July 18, 2008).

McMenamin, Terence M. 2007. "A time to work: recent trends in shift work and flexible schedules." *Monthly Labor Review*. December. p. 3-15.

http://www.bls.gov/opub/mlr/2007/12/art1full.pdf (accessed July 18, 2008).

Rosa, Roger R. and Michael J. Colligan. 1997. Plain Language about Shiftwork. U.S. Department of Health and Human Services. Centers for Disease Control and Prevention. National Institute for Occupational Safety and Health. DHHS (NIOSH) Publication No. 97-145. p. 39. http://www.cdc.gov/Niosh/pdfs/97-145.pdf (accessed July 22, 2008).

Shields, Margot. 2002. "Shift work and health." *Health Reports.* Vol. 13, no. 4. July. Statistics Canada Catalogue no. 82-003. p. 11-33.

http://www.statcan.ca/english/studies/82-003/archive/2002/13-4-a.pdf (accessed July 18, 2008).

Williams, Cara. 2001. "You snooze, you lose? – Sleep patterns in Canada." *Canadian Social Trends.* No. 60. Spring, Statistics Canada Catalogue no. 11-008. p. 10-14. http://www.statcan.ca/english/freepub/11-008-XIE/2000004/articles/5558.pdf (accessed July 18, 2008).